

Amendments to the Claims

(Previously Amended) 1. A method for sequencing a developer process to reduce wafer pattern defects, comprising:

dispensing a substantially inert material onto a wafer surface to form a layer of substantially inert material prior to dispensing a developer fluid, wherein the substantially inert material is dispensed through a selected multi-dispense nozzle;

dispensing the developer fluid through the same multi-dispense nozzle onto the layer of inert material while spinning the wafer surface substantially simultaneously to induce a flow of the developer fluid across a portion of the wafer surface toward the outer edge of the wafer surface;

allowing the developer fluid to puddle on the wafer surface for a predetermined dwell time to permit substantial completion of a developing chemical reaction to occur;

dispensing a fresh charge of the developer fluid in addition to the previously dispensed developer fluid through the same multi-dispense nozzle; and

dispensing another quantity of substantially inert material through the same multi-dispense nozzle to rinse the wafer surface.

C. Claims 2-3 (Previously canceled).

4. (Currently Amended) The method of claim 1 further comprising the step of:
dispensing another quantity of substantially inert material over a wafer surface subsequent to dispensing the fresh charge of developer fluid while rotating the wafer surface [at relatively high speed].

5. (Currently Amended) The method as recited in claim 4 further comprising the step of:
spinning the wafer surface [at relatively high speed] to achieve a selected level of dryness.

6. (Previously Added) The method as recited in claim 1, wherein the substantially inert material and the developer fluid are dispensed through the same multi-dispense

nozzle while positioned within a single common predefined region above the wafer surface.

7. (Previously Added) A method for dispensing developer solution and deionized water to form patterned images onto a semiconductor wafer comprising the following steps of:

selecting a multi-port nozzle for dispensing at least one developer and deionized water;

dispensing an initial amount of deionized water onto a resist-coated substrate wafer through a first selected outlet formed in the multi-port nozzle to provide a layer of deionized water on the wafer prior to dispensing a developer fluid;

dispensing an initial charge of developer fluid onto the layer of deionized water through a second selected outlet formed in the multi-port nozzle while substantially simultaneously spinning the wafer to induce a flow of the developer fluid towards an outer edge of the wafer;

puddling the developer fluid on the wafer for a predetermined dwell time to permit substantial completion of the developing chemical reaction to occur;

dispensing a fresh charge of developer fluid from the multi-port nozzle in addition to the initial charge of developer fluid previously dispensed; and

dispensing another selected amount of deionized water through the first selected outlet formed in the multi-port nozzle in order to rinse the wafer.

8. (Currently Amended) The method as recited in claim 7, wherein the multi-port nozzle both dispenses the deionized water and the developer fluid [from substantially the same position] without movement relative to the wafer.

9. (Previously Added) The method as recited in claim 7, wherein the initial charge of developer fluid and the fresh charge of developer fluid consists of two different types of developer solutions.

10. (Previously Added) The method as recited in claim 9, wherein the fresh charge of developer fluid is dispensed through a third selected outlet formed in the multi-port nozzle.

11. (Previously Added) A method for reducing precipitation of a developer reactant on a photoresist-coated wafer by lowering a sudden change in pH comprising the following steps of:

selecting only a single multi-port nozzle for dispensing at least one developer and deionized water;

dispensing an initial amount of deionized water onto a photoresist-coated substrate wafer through a first selected outlet formed in the multi-port nozzle to provide a layer of deionized water on the wafer prior to dispensing a developer fluid;

dispensing an initial charge of the developer fluid through a selected second outlet formed in the same multi-port nozzle while spinning the wafer to induce a flow of the developer fluid towards an outer edge of the wafer;

puddling the developer fluid on the wafer for a predetermined dwell time to permit substantial completion of the developing chemical reaction to occur;

dispensing a fresh charge of the developer fluid from the same multi-port nozzle in addition to the initial charge of the developer fluid previously dispensed; and

dispensing another selected amount of deionized water through the first selected outlet formed in the multi-port nozzle to rinse the wafer surface while spinning the wafer.